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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/147,520	02/22/1999	RYUZOU TOMOMATSU	2421-0331-2X	1832

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EXAMINER

ROSENBERGER, RICHARD A

ART UNIT PAPER NUMBER

2877

DATE MAILED: 04/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/147,520

Applicant(s)

TOMOMATSU, RYUZOU

Examiner

Richard A Rosenberger

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 10 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 17-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

1. Claims 17-20, 29-33 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 17 and 30 both set forth that there is "a rotatable disc-shaped plate provided in an optical path between the objective lens and the light detection member" (claim 17; similar language in claim 30). This is unclear and does not clearly point out and distinctly claim the invention; there is no function of structure to give any meaning to this "rotatable disc-shaped plate", but it is claimed merely as an anonymous and functionless stray element.

It is noted that claims 21-28 and 34-41 do not inherit this rejection because claims 21-24 and 34-37 each add structure and function to the disc-shaped plate, with language such as "a quantity of light having passed through one of a plurality of openings in the rotatable disc-shaped plate" in claims 21.

In claims 19 and 32 the language "plural kinds of various refractive indices" is unclear and confusing. It is not clear what a "kind" of refractive index may be and it is not clear what is meant by "properly selecting and using the plural kinds of various refractive indices" to adjust the irradiation angle as claimed.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 17-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 5,706,091) in view of Arai et al (US 5,115,319).

The Shiraishi reference shows a surface inspection method and apparatus in which there is a light source (1) to apply light to a surface (10) being measured. There is an objective lens (9) that receives light reflected light from the surface. There is an illumination switchover means (6,7,8) between the light source and the surface being measured configured to switch between bright-field and dark-field illumination. There is a light detector (28). Those in the art can choose the appropriate type of the two available illuminations, dark- or bright- field, to view the surface according to the nature of the surface and the characteristics of the surface to be observed; the two types of illumination are provided because of the well-known fact that the two different types of illumination reveal different information about the surface.

Shiraishi discloses an aperture stop (26), and teaches that it is changeable in size (column 19, lines 38-41), but does not disclose any particular means of making the size changeable. On well-known manner of changing the size of aperture stops in optical systems is to provide a rotatable disc with holes of different sizes that can

be rotated into position as desired; see Arai et al (element 4 in figures 1 and 6) as an example of this. The use of this known aperture-size adjustment mechanism in the system of Shiraishi would have been obvious.

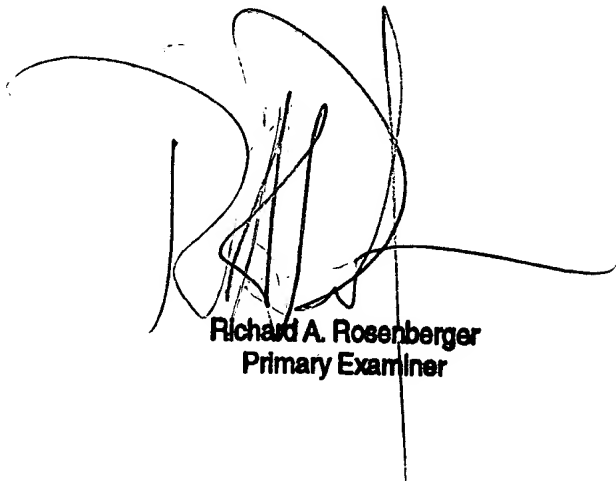
Shiraishi discloses that a zoom lens can be used to adjust the size of the light spot on the sample; see column 27, lines 31-36 and column 38, lines 57-65. The choice of other means to change the magnification of the lens, such as replacing one lens with another with a different optical power, would have been obvious.

4. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 308-7722.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (703) 308-4804.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

R. A. Rosenberger  
29 April 2003



Richard A. Rosenberger  
Primary Examiner